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The School-to-Work Transition of Students with Learning Disabilities:

The Influence of Identity Status, Personality,
and Career Decidedness on Career Decision Making

Graduate Thesis

Submitted to the Faculty

Of the School Psychology Program

College of Liberal Arts

ROCHESTER INSTITUTE OF TECHNOLOGY

By

Jennifer Lynn Merry

In Partial Fulfillment of the Requirements
for the Degree of
Master of Science and
Advanced Graduate Certificate

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Approved: Scott P. Merydith
(committee chair)

Jennifer Lukomski
(committee member)

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This thesis is dedicated with deepest love and gratitude to my parents, Karen and James Stenzel.

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The School-to-Work Transition of Students with Learning Disabilities:
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and Career Decidedness on Career Decision Making

Jennifer Lynn Merry
Rochester Institute of Technology

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CHAPTER ONE

An Overview of the Study

This chapter introduces the broad concepts inherent in the present study investigating the influence of identity status and career decidedness on the school-to-work transition of students with learning disabilities. First, the concept of school-to-work transition is presented. Next, a brief discussion of learning disabilities is introduced. Third, the concept of identity status is presented. Lastly, the concept of career decision making is discussed.

School-to-Work Transition

Almost half of each graduating high school class, which is approximately 1.4 million people, enter the workforce directly each year (Glover & Marshall, 1993). School-to-work transition refers to that period of time that occurs prior to and following high school graduation for students intending to seek employment rather than pursue further education. The transition period generally occurs during a wide time span which ranges from late adolescence to early adulthood.

There are many terms used to describe this subpopulation of youth such as job-bound, employment-bound, the Forgotten Half, the bottom half, and specialty-oriented as described by Herr and Niles (1997). The most widely used terms appear to be work-bound and non-college bound. Although many researchers use the term non-college bound, others prefer to use work-bound instead because the latter term suggests a negative connotation.

Students with Learning Disabilities

According to the U.S. Department of Education, National Center for Learning Disabilities (NCLD), approximately three million students are classified as having specific

learning disabilities and receive some kind of special education support (NCLD, 2007). A learning disability is defined by the NCLD as “a neurological disorder that affects the brain’s ability to receive, process, store, and respond to information” (2007). A student with a specific learning disability has an IQ standard score of 90 or above; however, the student’s achievement scores are significantly below their intellectual functioning. Overall, a learning disability has been defined as a severe discrepancy between intellectual potential and academic achievement. This is referred to as the discrepancy model. Furthermore, a student with a learning disability demonstrates a processing deficit in the areas of processing speed, memory, reasoning, communication, and other psychological processes that are involved in learning.

Recently, the concept of Response-to-Intervention (RTI) has emerged nationwide as a method to determine whether a child needs special education services rather than the discrepancy model. RTI entails a focus on the teaching and learning processes and whether or not “instruction in the general education setting (i.e. strategies, methods, interventions, or curriculum) lead to increased learning and adequate progress” (NCLD). The RTI approach is an early intervention and remedial approach which generates data to inform instruction and also identify students who may require special education. When a student is provided with quality instruction and remedial services, a student without disabilities will make satisfactory progress unlike a student with a learning disability

Many students with learning disabilities experience grade retention (McLeskey & Grizzle, 1992), dropout (Blackorby & Wagner, 1996; Sitlington & Frank, 1993), emotional distress (Svetaz, Ireland, & Blum, 2000), and low self-esteem (Raviv & Stone, 1991; Colangelo, Kelly, & Schrepfer, 1987). The results of the National Longitudinal Transition Study-2 (NLTS2) revealed that many students with learning disabilities enroll in two-year community colleges and

hold part-time jobs in retail. Researchers have also found that students with learning disabilities have lower career aspirations than their peers without learning disabilities (Rojewski, 1996; Plata & Bone, 2001).

Identity Formation/Status

Marcia (1966) proposed that individuals resolve the identity versus identity diffusion task in four distinct ways, each of which is defined by a different ego identity status. The moratorium status describes persons who are currently exploring but have not yet committed themselves to the various dimensions of identity. The identity-achievement status refers to persons who have gone through a period of exploration (as in the moratorium status) and have emerged with a clear commitment to their ego identity. The foreclosure status refers to persons who have attained a firm level of commitment by adopting the attitudes of their parents without deliberation or exploration. The diffusion status is characterized by an absence of both exploration and commitment.

Early adolescents tend to be either engaged in no identity activity (identity diffusion) or have made premature, non-reflective commitments (foreclosure) according to findings in a study by Archer and Waterman (1983). The early adolescent years generally refers to the sixth through ninth grades. The researchers noted that the greatest movement during adolescence may take place between the tenth and twelfth grades (Allison & Schultz, 2001).

Career Maturity/Decision Making

The concept of “career indecision” refers to any problem state in career development, according to Fuqua, Blum, and Hartman (1988). Career indecision is evident on self-reports when individuals report being undecided about a career. Researchers have found that identity

formation influences aspects of career maturity much more than does self-concept (Wallace-Brosious, Serafica, & Osipow, 1994).

CHAPTER TWO

Review of Related Literature

This Chapter is a review of the relevant literature which forms an empirical basis for the proposed study. First, the school-to-work transition of youth is discussed. Next, the characteristics and the school-to-work transition processes and outcomes of students with learning disabilities are integrated. Then, a discussion on the concepts of identity formation and career decision making are reviewed.

School-to-Work Transition

what is it?

School-to-work transition refers to that period of time that occurs prior to and following high school graduation for students intending to seek employment rather than pursue further education. The transition period generally occurs during a wide time span which ranges from late adolescence to early adulthood. Halpern (1992, p. 203) describes this transition phase as “a period of floundering that occurs for at least the first several years after leaving school.” One goal of the school-to-work movement, therefore, is to reduce the “floundering” that adolescents experience, although most researchers argue that “floundering” is a normal process for adolescents and school-to-work programs should allow for some trial behaviors.

Herr and Niles (1997) describe youth who are work-bound as a heterogeneous group. Many will pursue community colleges or other technical skill programs due to military service agreements or union agreements for educational benefits, their current job or firm requires that they maintain and improve competencies, or because their career goals change and a higher degree is required. Work-bound youth play major roles in industries such as, “construction,

trucking and rail, wholesale and inventory systems, maintenance and operation of road, water, and sewer systems, building and vehicle repair, and telecommunications installation, monitoring, and operating” (p. 139). Furthermore, many have technical skills in the areas of “electronics, computers, hydraulics, computer assisted drafting, construction technologies, health care, and financial or business services” (p. 140). Although this subpopulation is a heterogeneous group, it is often categorized as one group and labeled the working class or non-college bound.

Lewis, Stone, Shipley, and Madzar (1998) suggest that the distinctions between “college-bound” and “non-college bound” are social constructions. Furthermore, they suggest that there is a social problem for those that are “non-college bound,” in which schools and workplaces can play a major role in improving. They consider it to be a social problem because many youth lack the skills needed to be successful and many businesses do not want to hire youth out of high school nor do companies offer training. Many youth enter into jobs in services, sales, and other low skill trades. Lewis et al. suggest that “vocationalism” should be a transition from high school to vocational programs and/or to postsecondary career programs, and then to work, rather than the student floundering in the labor market after high school in low skill and low wage jobs. They believe that the school-to-work transition is a societal issue in the United States because compared to other industrialized nations such as Japan and Germany, “vocationalism” in the United States is behind and needs improvement.

The school-to-work movement was sparked by a growing concern for students who are work-bound. Those that seek employment after high school often drift from one job to another or are unemployed (Smith & Rojewski, 1993). In response, the U.S. federal government has passed many legislative acts since the early 1900s. Most recently and noteworthy is the passage of the School-to-Work Opportunities Act of 1994 (STWOA), which provides funding for school-to-

work programs for all youth, including those with disabilities. These programs are designed to build a bridge between the public school system and private businesses in order to help students prepare for a better future. In addition, the school-to-work programs offer technical skills training and education to assist work-bound students' transition (Worthington & Juntunen, 1997). Lewis et al. (1998) propose that the STWOA is evidence of an ongoing social problem in the United States.

Almost half of each graduating high school class, which is approximately 1.4 million people, enter the workforce directly (Glover & Marshall, 1993). According to the U.S. General Accounting Office (1993), approximately 30% of youth between the ages of 16 and 24 lack skills for entry-level employment. Furthermore, about half of adults in their late 20s have not found a steady job. The school-to-work movement may impact the employment outcomes of the 75% or more youth who do not achieve a four-year college education. Many of these youth are enrolled in high schools and community colleges. Some enter four-year colleges, but according to the U.S. General Accounting Office (1993) approximately only 15% of high school graduates complete a four-year degree within six years of entering college.

College graduates earn substantially higher wages than community college graduates and those with no postsecondary education. Worthington and Juntunen (1997) propose it might seem logical then to increase the number of youth attending college. However, the number of college graduates exceeds the number of jobs that require a college degree. Increasing the number of college-educated youth will not resolve the problems associated for those who do not obtain a four-year degree. Thus, the authors state that, "a key element of the school-to-work movement is the attempt to eliminate the notion that a four-year degree is the only track through which

occupational success can be achieved” (p. 331). The school-to-work movement was designed to prepare work-bound youth for a successful future.

Work Readiness

Researchers have examined factors that are associated with work readiness or preparedness of high school students. Phillips, Blustein, Jobin-Davis, and Finkelberg White (2002) interviewed 17 high school juniors and concluded that becoming “ready” can take multiple pathways. The concept of “readiness” is derived from career development theories (e.g. Super & Overstreet, 1960; & Miller & Form, 1951) which suggest that high school students that demonstrate particular characteristics are more likely to adapt successfully to work life. One path to becoming ready is by participating in work-based learning and exploration. Similarly, Super and Overstreet (1960) identified two key characteristics to becoming ready: the importance of a positive attitude toward planning and exploration. However, a student may become ready for work by experiencing significant life events, by defining a more intermediate goal, or by being curious with sustained interest. Furthermore, the researchers found that active support from adults and an orientation to the world of work facilitates a successful transition.

Blustein, Phillips, Jobin-Davis, Finkelberg, and Roarke (1997) interviewed 45 employed adults, ages 18 to 29, who have been in the school-to-transition during the past 10 years. The majority of the participants were high school graduates and approximately half attempted to complete some type of postsecondary education, but did not. The researchers found that those who struggled with their transitions explored less and lacked support from more experienced adults. These findings are consistent with the developmental perspective of the school-to-work transition in that high school students who engage in exploratory behaviors and planning are more likely to be “ready” for the world of work (Savickas, 1999).

Many work-bound youth drift from one job to another. Person-environment fit theories (e.g. Holland, 1997) suggest that a lack of congruence between an individual and his or her environment will likely lead to dissatisfaction and job turnover. Drifting from one job to another represents a failure in the school-to-work transition. To prevent this, Swanson and Fouad (1999) suggest that students spend sufficient time in exploration as well as a focus on the decision-making process. The researchers suggest that exploration should occur in a systematic way, using standardized instruments which focus on measures such as of interests, values, and abilities.

Historical Background

Federal legislative acts, beginning with the Wagner-Peyser Act of 1933 have addressed workforce readiness of adolescents. Other legislative acts passed include: the Educational Amendments Act of 1974, the Job Training Partnership Act of 1982, and the Carl D. Perkins Vocational Education Acts of 1984 and 1990 (Lent & Worthington, 1999). However, a strong focus on school-to-work transition began in the early 1930s after the Great Depression. It was during this time that Truman Kelley at the Harvard Graduate School of Education suggested that counselors assess students' probable success using a construct called the "Index of Congruence" (Savickas, 1999, p. 48). Kelley's colleague, Brewer, outlined criteria to use in constructing a congruence index. Mildred Lincoln, one of Brewer's students, developed an Index of Congruence, which included profile forms and a scoring manual for counselors to use in order to estimate the probability of success in carrying out educational and vocational plans. From 1929 to 1937, Lincoln taught the Congruence Index assessment and counseling technique to her graduate students at Columbia University. Her Congruence Index seems to be the earliest vocational maturity scale. The Congruence Index consists of eight scales, such as the

“Comprehensiveness of reasons for choosing occupation” and “Correspondence between requirements of occupation and qualifications of individual” (Savickas, 1999, p. 47).

According to Savickas (1999), the two most notable studies conducted after World War II were Miller and Form's (1951) study of life patterns in work adjustment and Super's (1954) study of career patterns. Miller and Form outlined a social psychological model of work pattern over the course of a life time. They note that there are five periods of work adjustment: (a) preparatory (i.e. education and training); (b) initial (i.e. part-time and summer jobs during high school); (c) trial (i.e. first full-time job); (d) stable (i.e. taking steps towards a preferred job); and (e) retirement (i.e. leaving the workplace). According to Miller and Form, the school-to-work transition is a phenomenon characterized by three substages: the tentative substage – involves choosing an occupation and getting the required training; the trial substage – obtaining an initial occupational position and taking steps to settle into a preferred occupation; and the stabilizing substage – securing a position in a preferred occupation. Super's Career Pattern Study (CPS) focused on vocational coping behaviors during these transition stages. Super concluded that the best predictors of stabilization are ability, interest, and school achievement (Savickas, 1999).

During the 1960s, work-study programs were developed in response to the issues associated with school-to-work transitioning. The Rehabilitation Services Administration (RSA) influenced vocational rehabilitation (VR) counselors to develop the work-study programs (Szymanski & Danek, 1985). These programs were designed to prepare students with mild disabilities for work adjustment. Schools collaborated with rehabilitation agencies and integrated academic, school, vocational curriculum, and appropriate work experiences in order to prepare students. The programs ceased in the early 1970s because of funding problems. In 1973, amendments to the Vocational Rehabilitation Act ceased program funding because the

amendments stated that “the rehabilitation agency cannot pay for services that are the legitimate responsibility of some other agency,” such as the schools (Halpern, 1992, p. 203). In 1975, Education of All Handicapped Children Act (Public Law 94-142) was passed, which required that every child with a disability be entitled to “a free and appropriate public education” (Halpern, 1992, p. 203). Work experience was considered an appropriate education during high school for many students with disabilities. Consequently, rehabilitation agencies decided that these services are the responsibility of the schools.

In 1970, career education was declared the top priority of the United States Office of Education. Approximately \$90 million were distributed under grants that were already available under the 1968 Vocational Education Act. These grants were focused on career education for the general population of students. In 1974, the Office of Career Education was established within the U.S. Office of Education. Soon after, Public Law 95-207, the Career Education Implementation Incentive Act, was passed in 1977. This act required career education for general population students as well as for those with disabilities. In 1976, the Division of Career Development was approved as a 12th division of The Council for Exceptional Children. In 1982, the Career Education Implementation Incentive Act was repealed by Congress (Halpern, 1992).

During the 1980s the U.S. Department of Education (DOE) was created and the Education of the Handicapped Act Amendment of 1983 provided grants to develop model transition and postsecondary education programs (Szymanski & Danek, 1985). In 1984, a position paper from the Office of Special Education and Rehabilitative Services (OSERS) introduced the concept of a “transition model,” which later became known as a “bridges model.” This model entailed three types of services (bridges). The first bridge, labeled “transition without special services,” referred to services for anyone in the community, such as a community

college. The second bridge, “transition with time-limited services,” referred to short-term services for those with a disability, such as vocational rehabilitation. The third bridge, “transition with ongoing services,” referred to long-term services for those with a disability (Halpern, 1992, p. 205). The Administration on Developmental Disabilities (ADD) and the Job Training and Partnership Act (JTPA) both offered support for the transition process. Professional organizations such as the American Rehabilitation Counseling Association (ARCA) also became involved in the transition process during the 1980s. School vocational rehabilitation counselors offered assessment of vocational potential, vocational planning, and job placement (Szymanski & Danek, 1985).

current legal status for specific learning disabilities

In 1990, Education of All Handicapped Children Act was amended and referenced as the Individuals with Disabilities Education Act (Public Law 101-476). According to the U.S. Department of Education, Office of Special Education Programs, the reauthorized Individuals with Disabilities Education Act (IDEA) was signed into law on December 3, 2004, by President George W. Bush. Added procedures for identifying children with specific learning disabilities included a statement that the criteria adopted by the State “must not require [exclusively] the use of a severe discrepancy between intellectual ability and achievement for determining whether a child has a specific learning disability” (DOE, 2006, p. 1). Furthermore, when identifying a student, the criteria adopted by the State “must permit the use of a process based on the child’s response to scientific, research-based intervention and may permit the use of other alternative research-based procedures for determining whether a child has a specific learning disability” (2006, p. 1).

In addition, the reauthorization of IDEA requires additional group members when determining whether a child is suspected of having a specific learning disability. The child's regular teacher, or if the child does not have a regular teacher, a regular classroom teacher qualified to teach a child his or her age and at least one person qualified to conduct individual diagnostic examinations of children, such as a school psychologist, must be present in addition to the child's parents (DOE, 2006).

The reauthorization of IDEA also added criteria for determining the existence of a specific learning disability "in that the group may determine that a child has a specific learning disability if the child does not achieve adequately for the child's age or to meet State-approved grade-level standards in one or more of the following areas: oral expression, listening comprehension, written expression, basic reading skills, reading fluency skills, reading comprehension, mathematics calculation, and mathematics problem solving" (DOE, 2006, p. 2). Furthermore, "the child does not make sufficient progress to meet age or State-approved grade-level standards in one or more of the areas identified when using a process based on the child's response to scientific, research-based intervention; or the child exhibits a pattern of strengths and weaknesses in performance, achievement, or both, relative to age, State-approved grade-level standards, or intellectual development, that is determined by the group to be relevant to the identification of a specific learning disability, using appropriate assessments and the group determines that its findings are not the primary result of: a visual, hearing, or motor disability, mental retardation, emotional disturbance, cultural factors, environmental or economic disadvantages, or limited English proficiency" (DOE, 2006, p. 2).

IDEA also requires that the child is observed in the regular classroom setting. The team must have at least one member conduct an observation of the child's academic performance in

the regular education classroom after the child has been referred for an evaluation and parental consent has been given. In determining whether a child has a specific learning disability, the team must use information from an observation in the regular classroom setting and monitoring of the child's performance that was completed prior to the child being referred for an evaluation (DOE, 2006, p. 3).

The IDEA regulations for secondary transition was also reauthorized in that "transition services" means "a coordinated set of activities for a child with a disability that is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities, including postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation" (DOE, 2007, p. 1). The transition services should be based on the child's needs and should take into account their strengths, preferences, and interests. Moreover, transition services includes "instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, if appropriate, acquisition of daily living skills and functional vocational evaluation" (2007, p. 2). The reauthorization of IDEA states that "beginning no later than the first IEP to be in effect when the child turns 16, or younger if determined appropriate by the IEP Team, and updated annually thereafter must include: appropriate measurable postsecondary goals...transition services needed...and beginning not later than one year before the child reaches the age of majority under State law, a statement that the child has been informed of the child's rights" (2007, p. 2). Furthermore, the reauthorization requires that the team invite the child to attend the

child's IEP Team meeting if the purpose of the meeting is in regards to postsecondary transition goals and services (DOE, 2006).

School-to-Work Processes

The Office of Vocational and Adult Education (OVAE) supports many grants and programs for high schools, community colleges, and technical training programs. The Preparing America's Future High School Initiative was launched at the National High School Summit in October 2003. The initiative recognizes that high school students need the academic and workplace skills necessary for postsecondary education, an apprenticeship, or a career. In a press release from the Office of the Press Secretary in September 2004, President Bush's new education proposals included Community College Access Grants, which provides funding to improve the services that community colleges provide. According to the press release, 80% of the fastest growing jobs require postsecondary education or training. The OVAE has developed initiatives to support community colleges, which serve over 11 million students annually. There are over 1,200 community colleges nationwide which offer two-year associate degrees, transfer programs with four-year institutions, job training, and job retraining. According to the OVAE, community colleges face many challenges, such as under prepared students and low rates of program completion (DOE & OVAE).

The College and Career Transitions Initiative (CCTI) program's purpose is to facilitate student transitions between secondary and postsecondary education. To support the project, the League for Innovation in the Community College (League) has entered into a cooperative agreement with the U.S. Department of Education, Office of Vocational and Adult Education (OVAE). The project's goal is to help students move effectively from high school to college and to careers. The CCTI has developed Career Pathway Plans of Study for occupations which

require less than a baccalaureate degree. Youth who enter into the world of work enroll at a community college or vocational training program have a variety of occupations to consider. The CCTI has developed career pathways for five occupational areas which include: (a) information technology; (b) science, technology, engineering and mathematics; (c) education and training; (d) health science; and (e) law, public safety, and security. The following is a partial list of occupations which do not require a four-year or higher degree: spa attendant, personal fitness trainer, hairdresser, nanny, teacher assistant, banker, adult and childcare worker, payroll professional, bookkeeper, dispatcher, receptionist, stenographer, telecommunication technician, golf course manager, park manager, painter, carpenter, caterer, chef, interpreter, travel agent, claim clerk, sales agent, fire fighter, tool and die maker, warehouse manager, flight attendant, bus/truck/taxi driver, and many more. There are a variety of occupations that one can enter into that does not require a college degree. These occupations require various types of vocational training. Students who transition from school-to-work need the training and skills necessary to be successful (DOE).

Many resources are available and supported by the U.S. Department of Education with regards to career education and transitions. For instance, Career Voyages is a website created by the U.S. Department of Labor and the U.S. Department of Education. This website provides information on high growth jobs and the skills and education to attain those jobs. It is designed for target groups such as students, career changers, parents, and career advisors (DOE).

The Tech Prep Education program is considered to be an important school-to-work strategy by the U.S. Department of Education. This program provides assistance to states to award grants to institutions. Tech Prep education is a planned sequence of study in a technical field beginning as early as the ninth grade. The sequence extends through two years of

postsecondary occupational education or an apprenticeship program. Tech Prep was given major emphasis in the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 and was amended in the School-to-Work Opportunities Act of 1994. Student outcomes of Tech Prep programs include: (a) an associates degree or a two-year certificate; (b) technical preparation in at least one field of engineering technology, applied science, mechanical, industrial, or practical art or trade, or agriculture, health, or business, (c) competence in math, science, and communication; and (d) employment. Many of these programs are appropriate for students with mild disabilities, such as a specific learning disability.

Characteristics of Students with Learning Disabilities

According to the U.S. Department of Education, National Center for Learning Disabilities (NCLD), 2.9 million students are classified as having specific learning disabilities and receive some kind of special education support (NCLD, 2007). A learning disability is defined by the NCLD as “a neurological disorder that affects the brain’s ability to receive, process, store, and respond to information” (2007). Furthermore, “the term learning disability is used to describe the seeming unexplained difficulty a person of at least average intelligence has in acquiring basic academic skills” (2007). A learning disability is not a single disorder but rather can affect a person’s ability in specific areas such as listening, speaking, reading, writing, and mathematics. Characteristics of a learning disability include: (a) “a distinct gap between the level of achievement that is expected and what is actually being achieved;” (b) “difficulties that can become apparent in different ways with different people;” (c) “difficulties that manifest themselves differently throughout development;” and (d) “difficulties with socio-emotional skills and behavior” (NCLD, 2007). Overall, a learning disability has been defined as a severe discrepancy between intellectual potential and academic achievement. Furthermore, a student

with a learning disability demonstrates a processing deficit in the areas of processing speed, memory, reasoning, communication, and other psychological processes that are involved in learning.

According to a report prepared by the National Joint Committee on Learning Disabilities (NJCLD), recent interest in Response-to-Intervention (RTI) has increased and emerged from a growing concern about the inadequacies of the ability-achievement discrepancy model for identifying a learning disability. The concept of RTI entails a focus on the teaching and learning processes and whether or not “instruction in the general education setting (i.e. strategies, methods, interventions, or curriculum) lead to increased learning and adequate progress” (NCLD). The RTI approach is an early intervention and remedial approach which generates data to inform instruction and also identify students who may require special education. When a student is provided with quality instruction and remedial services, a student without disabilities will make satisfactory progress unlike a student with a learning disability. On the other hand, the ability-achievement discrepancy model has a focus on identifying a significant difference between a student’s intellectual ability and achievement. A student with a specific learning disability has an IQ standard score of 90 or above; however, the student’s achievement scores are significantly below their intellectual functioning. The Individuals with Disabilities Education Improvement Act of 2004 (IDEIA) “allows for the use of RTI data as part of an evaluation for special education to assist in the identification and determination of eligibility of students with learning disabilities, conceivably as an alternative to the use of the ability-achievement discrepancy criterion” (NCLD).

Many researchers believe that grade retention has increased because of an increase in minimum competencies that students are required to master before being promoted to the next

grade level. Furthermore, others argue that these higher expectations have increased the identification of students with learning disabilities (Medway, 1986; Ellwein & Glass, 1989; Sleeter, 1988 as cited in McLeskey & Grizzle, 1992). Most students with learning disabilities are identified in first through third grades. In a study by McLeskey and Grizzle (1992), the rate of retention of students identified with learning disabilities in Indiana was investigated. Furthermore, they explored the characteristics of those students who were retained versus those who were not retained before being identified. The data was collected during the 1987-1988 school year. Eligibility criteria for the identification of students with learning disabilities stipulated that a serious deficit in educational skills and a significant discrepancy between expected and actual achievement levels be present. Approximately 58% of all students with learning disabilities were retained prior to being labeled, suggesting that retention was being used as a remedial measure before labeling a student. The investigation also revealed that students with learning disabilities who were retained tended to have IQ and achievement levels significantly below students who were labeled with learning disabilities, but not retained. Despite the research on the negative consequences of retention, many teachers continue to recommend it as a means of remediation.

According to the National Center for Learning Disabilities, research shows that having a specific learning disability “does not in and of itself negatively impact self-esteem...however, there are a number of characteristics, frequently observed in people with learning disabilities, that contribute to feelings of low self-worth” (2007). These characteristics may include difficulties in areas such as “communication style, social awareness, self-knowledge, language, self-perceived social status, and self-perceived ability to effect change” (2007). In the area of communication style and social awareness, difficulties may include: (a) “appear to be overly

egocentric and disinterested in the opinions of other speakers;" (b) "has difficulty judging when it is his or her turn to participate in a conversation;" (c) "may misinterpret others' feelings;" (d) is unaware of when his or her behaviors are bothersome or annoying; and/or (e) "may have problems with visual-spatial planning and self-regulation, resulting in difficulties in judgment; they may misjudge how close to stand to someone during conversation, how to assume and maintain a relaxed posture or when it might be appropriate to touch" (NCLD, 2007). In regards to self-knowledge, a student with a learning disability may struggle with the following: (a) "is unsure how to understand his or her personal strengths and weaknesses, or how to explain them to others;" and (b) "has trouble evaluating and reflecting on his or her behavior in social interactions" (NCLD, 2007). In the area of language, possible difficulties may include: (a) "has limited vocabulary, or has difficulty retrieving the right words for the situation;" (b) "has trouble with topic selection;" (c) "talks around a topic, providing extraneous, less critical information in response to a question;" (d) "when asked to expand on something, is more likely to repeat rather than clarify his or her point;" (e) "in conversation, is more likely than peers to reply on gestures; and (f) "is unsure when to end a conversation" (NCLD, 2007). Self-perceived social status difficulties may include: (a) "has difficulty knowing how he or she fits in to a peer group, which often results in hanging back, being passive or sticking out in a crowd trying too hard to belong;" (b) "has limited success getting noticed in positive ways within a peer group;" and (c) "is perceived as less popular and therefore more frequently rejected or ignored by peers, sometimes resulting in further self-imposed isolation" (NCLD, 2007). Self-perceived ability to effect change might entail: (a) "believes that outcomes are controlled by external influences such as luck, chance, and fate, rather than as a result of his or her own efforts;" and (b) "assumes a posture of learned helplessness and believes that because he or she struggled with something in the past,

there is little they can do to change a negative outcome in the future, so they stop trying and hop for the best” As a result of these possible struggles, individuals with learning disabilities are “vulnerable to attacks on their feelings of self-worth” (NCLD, 2007).

Self-image of adolescents with learning disabilities compared to peers without learning disabilities and the severity, time of diagnosis, and parental perceptions were examined in a study by Raviv and Stone (1991). The criteria for meeting eligibility for a learning disability was as follows: average to above-average IQ scores, achievement scores at least two years below grade level in any one achievement area; a significant processing deficit; and no signs of emotional problems. Overall, the researcher did not find significant differences between the peers; however, they did note relative differences. They suggest that when self-concept is treated as a multidimensional entity, differences are evident in certain aspects of self-image in adolescents with and without learning disabilities. In general, students with learning disabilities tended to endorse items on a questionnaire which painted a picture of passivity, perceived helplessness, dependency, lack of confidence, and a sense of low worth. No differences were found between the severity of the learning disability (as measured by the degree of underachievement) and self-image. The time of diagnosis appeared to influence a lower self-image for students who experienced an early diagnosis compared to those diagnosed after the second grade. However, it was not possible from the study to determine whether or not time of diagnosis impacts self-image. In regards to parent perception, they viewed their children with learning disabilities as having a lower self-image than that reported by the adolescents themselves.

A comparison of students identified as gifted, general, and special learning needs on academic and social self-concept was examined in a study by Colangelo, Kelly, and Schrepfer

(1987). The gifted students had been already identified and participated in the school's gifted program; the special learning needs had already been identified and were in special classes; and general students had been neither identified as gifted nor as having special learning needs. In regards to academic self-concept, the researchers found that the girls in the gifted program scored higher than did girls in general classes. The boys in the gifted program scored higher on the academic self-concept measures than did the boys with special learning needs, but not compared to the boys in general classes. In regards to social self-concept, there were no differences between the girls in the gifted program and the girls in the general classes. The boys in the gifted program and general classes scored higher than did the boys with special learning needs on the social self-concept measures. In general, poor academic performance is associated with low-concept in many areas of development, which may lead to dropping out of school and other related events.

To identify differences in the emotional well-being among adolescents with and without learning disabilities, Svetaz, Ireland, and Blum (2000) used data from the National Longitudinal Study of Adolescent Health, which is a longitudinal study of adolescents in grades 7 through 12 across the United States. Surveys were completed during the 1994-1995 school year by a sub-sample of 20,780 youths and their parent agreed to participate in an in-depth interview. Of the 20,780 youth, 1,301 were identified as having a learning disability. Each case was assigned a weight so that the resulting analysis were generalizable to the U.S. adolescent population. The study revealed several findings. In regards to emotional distress, the analysis indicated that one in four boys and one in three girls with a learning disability report severe emotional distress. The researchers noted that is two to three times higher than the average adolescent population. Furthermore, results revealed that adolescents with learning disabilities reported twice the rate of

suicide attempts compared to their peers. In regards to violence involvement, adolescents with learning disabilities were twice as likely to be engaged in violent activities than their peers. In this study, adolescents with learning disabilities were more frequently male (2:1), more likely to live in a single-parent family, and more likely to have a lower income compared to peers. School connectedness and parent connectedness were identified as strong protective factors for the adolescents with learning disabilities.

Coping with school stress during the transition to junior high school was compared in a sample of 59 students with learning disabilities and 402 without learning disabilities in a study by Geisthardt and Munsch (1996). Participants were recruited at the beginning of the 1990 school year from the seventh grades in two junior high schools. In Texas at the time, students who were not mentally retarded and who had an appropriate learning experience, but showed a severe discrepancy between intellectual ability as measured by a standardized intelligence test and performance on a standardized achievement test in one or more areas were classified as learning disabled. A severe discrepancy was defined as a discrepancy of one standard deviation or more. The results revealed that students with learning disabilities are similar to adolescents without learning disabilities in regards to school stress and the ways they cope with it. However, the researchers found that the proportion of students with learning disabilities reported failing a class was significantly greater than the proportion of students without learning disabilities. Also, more students with learning disabilities reported being chosen for an important school activity as a school-related stressor than their peers. The researchers suggest that the reduced likelihood of being selected for a school activity for a student with a learning disability could impact social-emotional well-being. Being involved in extracurricular activities can increase a sense of accomplishment and competence outside academics and also can increase the likelihood that a

student will go on to postsecondary education (Margalit, Raviv, & Pahn-Steinmetz, 1988; Miller, Snider, & Rzonca, 1990; Murtaugh, 1988 as cited in Geishardt & Munsch, 1996). Consequently, these characteristics may impact those with learning disabilities and can directly influence their attitudinal, motivation, and sustainability for work readiness.

Many researchers have suggested that adolescents with learning disabilities may be prone to lower career aspirations because of cultural limitations due to discrimination and stereotypes or due to self-imposed limitations. In a study by Rojewski (1996), adolescents with learning disabilities held significantly lower educational aspirations than did their peers without learning disabilities. Over half of the high school seniors with learning disabilities aspired to less than a four-year college degree. In contrast, two thirds of adolescents without learning disabilities stated aspirations of attaining a four-year college degree or higher. Furthermore, occupational aspirations of high school seniors with learning disabilities were of less prestige compared to their peers without learning disabilities. Almost one half of all males with learning disabilities reported aspirations of moderate prestige, on the other hand, females with learning disabilities reported low prestige aspirations. Over one half of high school seniors without learning disabilities reported high prestige aspirations.

Similarly, Plata and Bone (2001) found that adolescents with learning disabilities perceived skilled, semi-skilled, and unskilled occupations as more important than managerial and professional occupations. Interestingly, only 8% of fathers of students with a learning disability as compared to 25% of fathers of students without a learning disability were in the professional category. In addition, 44% of the students with a learning disability reported retired, disabled, deceased, or unemployed fathers; in contrast, only 10.6% of students without a learning disability reported a similar employment status for their fathers. In a study by O'Connor and

Spren (1988), fathers' socioeconomic status and education level were found to be predictors of success for students with learning disabilities. Furthermore, parent participation was found to be related to both employment stability and job status of youth with learning disabilities in a study by Fourqurean, Meisgeier, Swank, and Williams (1991). They suggested that parent participation and family connections may be a major influence on success for youth with learning disabilities.

Differences in transitional needs of high school students with and without learning disabilities were examined by Dowdy, Carter, and Smith (1990). They also found that parents were credited by youth for the most support in terms of making career decisions, going to college, and getting a job. A difference was also noted in the goals of students in that twice as many students without learning disabilities wanted to go to college and twice as many students with learning disabilities wanted to enter the job market. The researchers suggested that the students with learning disabilities may have wanted to go to college, but many of them were concerned about qualifications in addition to having self-perceived limitations.

Whyte (1984) concluded that learning disabilities do not disappear during adolescence, but rather persist as significant problems, "affecting academic achievement, vocational instruction, and social and emotional adjustment" (p. 24). In addition, adolescents' self-reports are helpful in diagnosing the specific nature of learning disabilities.

Transition Processes for Students with Learning Disabilities

Each public school student who receives special education services must have an Individualized Education Program (IEP), which is an *individualized* document that guides the delivery of special education supports and services for a student with a disability. IEP teams must include transition planning in the first IEP that will be in effect when the child is 16 years of age. IDEA 2004 expands the requirements for transition planning from a statement of needed

transition services to the “development of appropriate measurable postsecondary goals based upon age appropriate transition assessments related to training, education, employment, and where appropriate, independent living skills and development of a statement of the transition services (including courses of study) needed to assist the child in reaching those goals” (Cortiella). Furthermore, IDEA 2004 states, “activities focus on improving the academic and functional achievement of the child to facilitate movement from school to post-school activities...and transition services be based on the student’s strengths, as well as their preferences and interests” (Cortiella). In a report by Cummings, Maddux, and Casey (2000), they recommend that transition planning for students with learning disabilities should entail a framework for kindergarten through 12th grades. When education eligibility is determined, transition goals and objects should be included in a student’s IEP. Moreover, the transition planning is an ongoing assessment program that begins in elementary school.

Levinson and Ohler (1998) suggest that the transition assessment program for students with learning disabilities consist of three levels. At level one, during the elementary school years, should identify the students’ needs, values, interests, and abilities. Children should receive direct instruction about work and career guidance in that children need to discover their personal characteristics. Level two assessments occur during the middle school years and should measure vocational interests and aptitudes, work habits, and career maturity. At this level, the focus should be on career exploration activities, understanding their learning disability, developing effective communication skills and job-related skills, encouragement to participate in extracurricular activities, and participating at their own IEP meetings. Level three assessment occurs during high school and includes experienced-based measures such as work samples. Vocational interests and personality traits should also be considered.

The factors of whether or not to participate in postsecondary education by youth with learning disabilities was examined by Miller, Snider, and Rzonca (1990). The participants included high school graduates, students who received a certificate of completion or special diploma, students who were terminated at age 21 or older, and high school dropouts. The results revealed that, “involvement in extracurricular activities while in high school, use of community services, intelligence quotient, and reading and mathematics grade equivalent scores were important factors that differentiated between subjects choosing to participate or not to participate in postsecondary education the year after high school” (p. 349). They suggest that students with learning disabilities would benefit from counseling in regards to building self-esteem as well as involvement with extracurricular activities.

The transition from secondary education to postsecondary education should be progressive and strategically planned according to Vess (2002). Furthermore, key components for the successful transition from postsecondary to employment outcomes for students with disabilities include: “academic preparation and development of social and life skills, self-awareness and self-advocacy, and career knowledge and behaviors” (p. 1605). Postsecondary success for students with disabilities, especially those with learning disabilities, has been found to be associated with high frustration tolerance, average to above average ability, perseverance, and recognition of the need to study more and perhaps take longer time to earn a degree compared to those without disabilities. Vess suggests that school psychologists can help students with disabilities by assisting with curriculum selection that leads to the skills and knowledge needed, teach students how to learn independently, how to track progress, and how to measure their own learning and skill levels. In addition, school psychologists can advocate for service delivery in postsecondary education and teach students with disabilities how to self-advocate.

They can also insist that students with disabilities participate and take an active role in the development of their Individualized Education Plan (IEP) and Individualized Transition Plan (ITP). School psychologists can also be involved in career planning by being involved with fostering work experiences, with vocational rehabilitation counselors, and assist with developing successful job-related attitude while students with disabilities are still enrolled in high school.

Witte (2002) recommends that career education should be provided to all students to learn about careers in the community. In addition, Witte recommends that career inventories should be completed along with an analysis of personal characteristics. Career orientations, job fairs, classroom presentations, and job shadowing can begin as early as middle school. Apprenticeships and other job-related work experiences during senior year is another suggestion. Witte also recommends model transition programs such as the Pathways to Satisfaction (PTS) Model developed by Thomas Holub, which is implemented in more than 30 school districts in the Midwest. The program is student and parent focused and individualized plans begin during the middle school years with a transition specialist, followed by “a comprehensive vocational assessment and career exploration, actual work experience, and appropriate transition experiences” (p. 1592). School psychologists can act as a coordinator throughout the educational career of a student, educate team members, serve as a school transition specialist, provide formal and informal assessment measures (e.g., aptitude, academic, interpersonal, and social), and serve as a business consultant informing employers about “various disabilities, characteristics, appropriate accommodations, special education law, and civil rights protects” (p. 1594). School psychologists can help design transition programs, provide in-services and continuing education for adults with learning disabilities, act as a mentor, communicate with parents, and provide direct instruction on personal management skills.

An in-depth case study by Collet-Klingenberg (1998) on a transition program in a rural Wisconsin school district for high school students with learning disabilities focused on best practices in transition planning. The following three categories were described: (a) vocation and related practices, (b) related transition instruction, and (c) indirect transition practices. In regards to vocation related services, the structure of transition was worked in a “scope-and-sequence” approach in that certain activities occur at specific points in time and along a continuum. Beginning in the freshmen year and continuing through the senior year, the plan includes career awareness and exploration activities starting in during freshmen year. During the sophomore year students have the opportunity to participate in a paid work experience. In junior and senior years, the Division of Vocational Rehabilitation (DVR) counselor becomes increasingly involved. Vocational education and academic support were also considered vocation related practices (see Figure 1). Related instruction included developing problem-solving, organization, self-advocacy, and communication skills. Transition planning activities included planning of activities, experiences, and instruction which was accomplished during community transition team meetings (involving business people, adult service providers, and other schools), parent and student involvement, and IEP meetings with the DVR counselor and the school-based team. The school-based transition team had 12 official members including a variety of teachers, the school psychologist and guidance counselor, the area transition coordinator, and a school administrator.

Transition Outcomes for Students with Learning Disabilities

In response to a growing concern for students with disabilities transitioning into young adulthood, the Office of Special Education Programs (OSEP) of the U.S. Department of Education sponsored the National Longitudinal Transition Study (NLTS) of Special Education Students. The NLTS was initiated in 1987 and included more than 8,000 youth, ages 13 to 21,

who were receiving special education services in 1985. Findings from the NLTS include trends in the employment, wages, postsecondary education, and residential independence of youth with disabilities. To identify changes amongst youth with disabilities, the OSEP commissioned the National Longitudinal Transition Study-2 (NLTS-2). In June 2005, a report was prepared for the OSEP to describe changes for youth with disabilities in 1985 and 2001 who had been out of high school for up to two years (SRI, 2005).

Youth with learning disabilities were found to be less likely to work full-time at their current or most recent job in 2003 compared to 1987. Another interesting change found was that youth with learning disabilities tended to work in retail rather than maintenance or clerical positions most commonly held by the cohort of 1987 (SRI, 2005).

According to the NLTS-2, the school completion rate of youth with disabilities increased and the dropout rate decreased by 17% between 1987 and 2003. Seventy percent of cohort two youth with disabilities had completed high school. Increases in school completion rates were significant for youth with learning disabilities. Furthermore, the rate of postsecondary education enrollment by youth with disabilities more than doubled over time. The greatest growth in postsecondary education was enrollment in two-year colleges and attendance at four-year institutions also increased significantly. On the other hand, enrollment at postsecondary vocational, technical, or business schools did not increase (SRI, 2005).

Results of the NLTS revealed a 28% dropout rate of those high school students classified as having a Specific Learning Disability (Blackorby & Wagner, 1996). In a study by Sitlington and Frank (1993), the adjustment of high school dropouts who were classified as having a learning disability was investigated one year after their graduating class had been out of school. They found that only 56% of the dropouts were employed full- or part-time and 68% of those

employed were working in laborer or service worker occupations. These results are similar to the 51% employment rate for dropouts reported by Hasazi, Gordon, and Roe (1985).

The NLTS-2 found that although cohort two youth were much more likely than their cohort one peers to have finished high school, those who dropped out in 2003 were no more or less likely to have participated in a General Educational Development (GED) or other high school equivalency programs than were dropouts in 1987. Youth who dropout may still obtain a high school diploma by re-entering a regular or alternative secondary school program or by taking an examination to obtain a GED. Approximately 9% of high school dropouts continued on to postsecondary programs such as vocational, technical, or business schools. Those that completed high school tended to enroll in two-year or four-year colleges rather than a vocational, technical, or business school (SRI, 2005).

Similarly, Murray, Goldstein, Nourse, and Edgar (2000) examined the postsecondary education status of 1985 and 1990 high school graduates. Youth with a learning disability who were enrolled in a postsecondary program were more likely to attend training programs and community colleges, whereas youth without disabilities were more likely to attend a four-year college. In addition, youth with learning disabilities were less likely to graduate than were their peers without disabilities.

A 20-year longitudinal study by Goldberg, Higgins, Raskind, and Herman (2003) of adults with learning disabilities was conducted to identify the variables that predict successful outcomes. The study was part of an ongoing longitudinal project conducted by the Frostig Center in Pasadena, California. The project traced the lives of those with learning disabilities in childhood and who had attended the Center between 1968 and 1975. The goal of the study was to determine whether or not the “success attributes” (e.g., self-awareness, self-acceptance of the

learning disability, pro-activity, perseverance, emotional stability, appropriate goal setting, and the use of social support systems) of the 10-year follow-up continued as determining differences between the successful and unsuccessful adults. Participants were identified as “successful” or “unsuccessful” using eight domains: “employment, education, independence, family relations, social relationships, crime/substance abuse, life satisfaction, and psychological health” (p. 223). Goldberg et al. concluded that the “success attributes” did predict specific outcomes for the adults with learning disability in the study. Furthermore, they noted changes over time from the 10-year follow-up to the 20-year follow-up in that only three successful adults became unsuccessful and three unsuccessful adults became successful between year 10 and year 20. Overall, participants felt that the stress of having a learning disability decreased into their 30s and they had developed coping strategies for emotionally stressful situations. However, the adults reported that they continued to need services, but many of the services were not in place.

Adolescents with learning disabilities often experience grade retention and dropout of high school. According to the findings of the National Longitudinal Transition Study-2, many youth with learning disabilities attend two-year community colleges and hold part-time jobs. Overall, youth with learning disabilities may have lower career aspirations, lower self-esteem, more emotional distress, and more academic frustration than their peers in general education. Although a large amount of research has been conducted on individuals with learning disabilities, few have investigated the identity formation process of this subpopulation.

Identity Formation/Status

Erikson’s (1968) identity versus identity diffusion is a psychosocial-developmental task. During late adolescence the major developmental tasks are thought to involve the exploration of the various dimensions of identity and to achieve a commitment to an inner sense of stability or

consistency, which is referred to as an ego identity (Marcia, 1966). From the ego identity perspective, exploration is defined by the active consideration of alternatives that encompass ideological issues (e.g., political and vocational domains) and interpersonal issues (e.g., friendship and dating domains). Commitment refers to the attainment of a stable sense of self-definition or ego identity, which is characterized by clearly delineated values, beliefs, and goals (Marcia, 1980).

Marcia (1966) also proposed that individuals resolve the identity versus identity diffusion task in four distinct ways, each of which is defined by a different ego identity status. The moratorium status describes persons who are currently exploring but have not yet committed themselves to the various dimensions of identity. The identity-achievement status refers to persons who have gone through a period of exploration (as in the moratorium status) and have emerged with a clear commitment to their ego identity. The foreclosure status refers to persons who have attained a firm level of commitment by adopting the attitudes of their parents without deliberation or exploration. The diffusion status is characterized by an absence of both exploration and commitment.

Archer and Waterman (1990) discuss the subcategories of identity diffusions and foreclosures. According to Erikson's theory, the healthy formation of an identity requires a moratorium. Achieving an identity is a major task for adolescents which continues into adulthood. Being in a moratorium stage entails selecting, sorting through, trying on, discarding, and reshaping one's sense of self. However, the majority of adolescents have not explored, but rather have committed without exploration of alternatives (foreclosure) or have lacked any kind of involvement in identity activity (diffusion).

The variety of subcategories of identify diffusion and foreclosure were compiled by Archer and Waterman from “both a theoretical analysis of the earlier stages in Erikson’s scheme and on impressions formed from extensive interviewing of early-, mid-, and late-adolescents” (p. 102). Subcategories of diffusion include precrisis, apathetic, alienated, pathological, marginally involved, and commitment-avoiding types. Precrisis identify diffusion is most common amongst early- and mid-adolescents who have no sense of urgency in considering identity-related questions. Apathetic identify diffusion entails a lack of identity-related commitments and a lack of interest in developing such commitments now or in the future. It involves a sense of apathy or hopelessness about the future. Alienated identify diffusion is similar to apathetic identity diffusions. They differ in their “emotional tone” in that alienated identity diffusion entails an expression of intense anger toward the identity formation process. Here too there are problems associated with personality development and anger most likely masks anxiety. Pathological identity diffusion is due to serious psychopathological issues and is not a “functional response” to difficulties experienced in the identity achievement process (p. 104). Marginally involved identity diffusion most resembles foreclosure. They rely on others for their sense of direction instead of seeking to choose a sense of identify themselves. Commitment-avoiding identify diffusion are “adolescents committed to not being committed” because they fear that any permanent commitment will prove to be unsatisfying (p. 104).

Individuals in all of the subcategories of foreclosure have made commitments, but without serious consideration of alternatives. Open foreclosure entails being open to other options and they tend to be secure in their choices and demonstrate no curiosity about other possibilities. Closed foreclosure is the opposite of the open foreclosure in that they are inflexible and intolerant. Premature foreclosure involves making a commitment very early in life. Late

developing foreclosure maintained a developmentally diffuse status until at least early adulthood and then committed to the first option to which they were drawn. Appropriated foreclosure take on someone's or some group's definition such as the joining of a religious cult or extremist group (Archer & Waterman, 1990).

Early adolescents tend to be either engaged in no identity activity (identity diffusion) or have made premature, non-reflective commitments (foreclosure) according to findings in a study by Archer and Waterman (1983). The participants ranged from the sixth grade to college entrance and completed an identity status interview. Findings revealed that through the tenth grade, 85% or more students were in the diffusion or foreclosure stages. Moreover, there was a decrease in the frequencies of the identity diffusion and foreclosure statuses from the sixth grade to the time of college entrance and there was an increase in the frequency of the moratorium and identity achievement statuses. The researchers noted that the greatest movement during early adolescence may take place between the tenth and twelfth grades.

Likewise, Allison and Schultz (2001) found 62% of early adolescents (grades sixth through eighth) are diffused or foreclosed in relation to identity development. Instead of using an identity status interview, the researchers administered the Revised Extended Version of the Objective Measure of Ego Identity Status (EOM-EIS-2; Bennion & Adams, 1986). Results indicated that female adolescents mature earlier than males and adolescents did not exhibit higher identity statuses (e.g. moratorium and achievement) as grade level increased.

The career decision making process is influenced by individual factors such as identity status and career maturity. Vocational exploratory activity was found to be related to the moratorium and identity-achieved statuses (Blustein, Devenis, & Kidney, 1989). According to

career development theorists (e.g. Super & Overstreet, 1960; & Miller & Form, 1951), the key to a successful transition is exploration.

Career Maturity/Decision Making

The concept of “career indecision” refers to any problem state in career development, according to Fuqua, Blum, and Hartman (1988). Career indecision is evident on self-reports when individuals report being undecided about a career. Many factors have been related to career indecision including: anxiety (Fuqua, Seaworth, & Newman, 1987), external locus of control (Cellini, 1978; Hartman & Fuqua, 1982; Kazin, 1977; Taylor, 1982), interpersonal dependency (Cooper, Faqua, & Hartman, 1984; Marr, 1965), lower ability levels (Crites, 1969; Elton & Rose, 1970; Hollender, 1971; Taylor, 1982), interests (Baird, 1969; Bohn, 1968; Elton & Rose, 1970), and cognitive styles (Maier & Herman, 1974; Walsh & Lewis, 1972) (as cited in Fuqua, Blum, & Hartman, 1988).

In a study by Faqua, Blum, and Hartman (1988), they explored the possibility that different types of career undecided students exist. The participants in this study were attending a suburban Chicago high school and completed the State-Trait Anxiety Inventory designed by Spielberger, Gorsuch, and Lushene (1970), the Identity Scale developed by Holland, Gottfredson, and Nafziger (1975), Rotter’s (1966), the Internal-External Control Scale, and the Career Decision Scale developed by Osipow, Carney, Winer, Yanico, & Koschir (1976). Four groups emerged. Group one represented a career decided group, relatively free of excessive anxiety, effective in terms of attribution and identity formation. Group two had a moderate level of career indecision, increased anxiety, less identity formation, and an internalized locus of control. Groups three and four exhibited the most serious level of career indecision, were more

external in their attribution, and had poorer identity formation. Group three had moderate levels of anxiety, whereas group four had high level of anxiety.

The researchers recommend that group two might benefit from interest inventories, career formation, and self-exploration related to career choices. Overall, the study offered support for differential diagnosis of career indecision. The researchers recommended to counselors that a single approach and program is not adequate because many clients who display career indecision will also be experiencing multiple problems. Furthermore, extensive psychological, social, cognitive, and affective assessment should be conducted whenever a client is experiencing a history of career indecision. Thus, treatment plans should be individualized.

Mortimer, Zimmer-Gembeck, and Holmes (2002) concluded that the transition from adolescence into adulthood has changed in many ways during the last half of the 20th century. Youth today are provided fewer resources to think about their vocational identity and future occupational career. In many cases the youth in this study delayed or postponed decision-making. Furthermore, they also noted that although opportunities to learn about vocational choices and educational opportunities are available in high schools, few of the students interviewed found those recourses helpful. Many of the participants reported trying several jobs, college majors, and postsecondary schools.

College students completed the revised version of the Extended Objective Measure of Ego Identity Status (EOM-EIS; Bennion & Adams, 1986) and the Decision-Making Styles section of the Assessment of Career Decision Making designed by Harren (1984) in a study by Blustein and Phillips (1990). Results indicated that persons in the identity-achievement status tend to rely on rational decision making. Persons in the foreclosure status tend to rely on the dependent decision-making style. Persons in the diffusion status seem to be associated with the

intuitive and dependent styles and inversely related to the rational style. Persons in the moratorium status were moderately associated with intuitive and dependent decision styles.

In a second study, Blustein and Phillips (1990) used the same measure of ego identity status, but used the Decision-Making Inventory by Coscarelli (1983) with a new group of college students. They concluded that the findings suggest that persons in the identity-achievement status are comfortable with an internal means of assessing their decisional data; whereas, persons in the diffusion and foreclosure statuses tended not to engage in internal or private means of analyzing information. They tended to “think out loud” in an external fashion. Persons in the identity-achievement status were actively engaged in career exploration and tended to be systematic and approached career decisions carefully. On the other hand, those in the foreclosure and diffusion statuses tended to be spontaneous and relied on intuitive and dependent strategies. In addition, parental attitudes of the identity formation process had an influence on a student’s decision-making style.

Similarly, in a study by Wallace-Broschious, Serafica, and Osipow (1994) ninth and twelfth graders completed the following measures: the Career Development Inventory, the Career Decision Scale, the Self-Perception Profile for Adolescents, and the Extended Objective Measure of Ego Identity Status. They found that seniors are more vocationally mature than the freshmen and that female students were more vocationally mature and expressed less vocational indecision than male students. The results revealed that identity formation influences aspects of career maturity much more than does self-concept.

Vocational exploratory activity is related to the moratorium and identity-achieved statuses according to Blustein, Devenis, and Kidney (1989). In their study, college students completed the Extended Objective Measure of Ego Identity Status (EOM-EIS; Bennion &

Adams, 1986), the Environmental Exploration (EE) scale, the Self-Exploration (SE) scale from the Career Exploration Survey (CES; Stempf, Colarelli, & Hartman, 1983), and the Decision-Making Task-Occupations (DMT-O) scale of the Assessment of Career Decision Making (ACDM; Buck & Daniels, 1985). Overall, youth who engage in exploratory activities that characterize the moratorium status are also aware of the need to initiate career planning. Given the findings of the study, the researchers recommend that vocational counselors develop interventions that help adolescents explore both the vocational and non-vocational aspects of their identities.

An investigation of the relationship between career maturity and Holland's constructs of congruence, consistency, and differentiation among individuals with and without learning disabilities was conducted by Ohler, Levinson, and Hays (1996). Results revealed no statistically significant associations between career maturity and any of the three constructs for either group and no relationship was found between Holland's Investigative personality types and career maturity. Congruence and academic performance were the two most significant predictors of career maturity. Congruence, "one of the three constructs in Holland's theory of vocational choice is defined as a close agreement between an individual's personality characteristics and the characteristics of his or her chosen occupational environment" (p. 52). Undergrad college students with and without learning disabilities were administered the Self-Directed Search (SDS; Holland, 1985) and the Career Development Inventory (CDI; Super, Thompson, Lindeman, Jordann, & Myers, 1981). The researchers proposed that the lack of significant findings in this study could be due to college students with learning disabilities may have developed strategies to cope compared to those with learning disabilities that do not attend college.

Rationale of the Present Study

Students with learning disabilities have higher dropout and retention rates and have lower wages and employment rates. Furthermore, students with learning disabilities are less likely to have a full-time job and are more likely to attend a two-year college rather than a four-year college compared to those without disabilities. Approximately three million students are classified as having a specific learning disability in the United States. The challenges and struggles they deal with during the school years continues into the world of work. Federal legislation (e.g. IDEA) mandates that a transition plan is included in a student's Individualized Education Plan (IEP), which needs to consider the student's preferences and interests. Despite "transition services" on a child's IEP, youth with learning disabilities often do not receive vocational education or a vocational evaluation. Clearly something is missing with the transition process. Therefore, the purpose of this study was to investigate the school-to-work career assessment of adolescents with learning disabilities compared to students in general education.

This study compared the level of career decidedness of adolescents who are classified as having a learning disability to those who are not. Four aspects of the student were considered, which included the following: personality factors, identity status, career maturity, and career interests. It was hypothesized that those with learning disabilities are more likely to experience identity diffusion and career immaturity than those without a learning disability. In addition, it was hypothesized that those with learning disabilities have less career aspirations than those without learning disabilities. Lastly, this study explores the use of vocational assessment and implications for career counseling.

CHAPTER THREE

Method

This chapter discusses the participations, procedure, and method of data analysis for the present investigation.

Participants

All students in a high school located in Western New York, who were identified as having a learning disability by the Committee on Special Education, were asked to participate in the study. Parents of students younger than 18-years-old were mailed consent forms for participation in this study. All 18 potential participants participated in the study and consisted of 7 males and 11 females with a mean age of 15.2 years. By grade level, the sample included 9th (n = 8 females, n = 4 males), 10th (n = 1 female, n = 1 male), one female 11th and 12th (n = 1 female, n = 2 males).

A general education control group was randomly selected from students who matched by age and gender at the school. Parents of students younger than 18-years-old were mailed consent forms for participation in this study (n = 21). Nine males and 11 females with a mean age of 15.5 years old participated. By grade level, the sample included 9th (n = 7 females, n = 4 males), 10th (n = 3 females), 11th (n = 1 female, n = 2 males), and 12th (n = 1 female, n = 3 males).

Instruments

brief demographic survey

The brief demographics survey was designed to survey each student in regards to his/her age and grade level, work experience, parents' occupations, as well plans for after high school

graduation. The students completed the survey before beginning the other instruments. In regards to their work experience, the participants were asked whether or not they have a part-time job, and if so, where and approximately how many hours per week do they work. Their past work experience was also a question (see Appendix).

Self-Directed Search (SDS) Form E/R: Fourth Edition

The SDS (Holland, Powell, & Fritzsche, 1994) is a career interest inventory designed for persons 12 years and older that can be self-administered and self-scored. Participants are assessed within a number of categories including: occupational daydreams, activities, competencies, occupations, and self estimates. A rank ordering of the resultant summed subscales produces a two or three letter summary interest code. This summary code represents the subject's vocational interest personality type. The RIASEC summary code represents vocational choices on the following preferences: Realistic (R – prefers to deal with things not ideas), Investigative (I – likes abstract problems and is original), Artistic (A – needs individualistic expression), Social (S – solves problems through relationships), Enterprising (E – is self-confident and shows leadership), and Conventional (C – prefers highly ordered activities). In addition to the summary code, four indexes can be calculated, which include: congruence, consistency, differentiation, and a summary aspiration code.

The congruence index refers to the amount of agreement or compatibility between any two codes. Degrees of congruence are determined by the hexagonal modal and can be calculated in three ways. The consistency index refers to the similarity between the types of codes and is determined by the position of those types in the RIASEC hexagon. The differentiation index refers to the level of distinctiveness of a personality or occupational profile. The summary aspiration code is determined from the daydream job listed.

The SDS Form E was designed for those who plan to transition to work or a vocational program after graduation from high school. Whereas, the SDS Form R was designed for those who plan to transition to a four-year college or more after graduation from high school. Form E is composed for students with limited education and reading skills. As reported in the SDS manual, median-retest reliability of $r = .61$ for males and $r = .64$ for females over a 3-4 week period.

16 Personality Factor Questionnaire: Fifth Edition (16PF)

The 16PF: Fifth Edition (Cattell, Cattell, & Cattell, 1993) provides scores on 16 normal primary personality scales and five global scales. Each primary scale contains 10-15 items in three-choice answer format for a total of 185 questions. Internal consistencies for the primary scales range from .68 to .87. Test-retest reliabilities from two weeks to two months range from .56 to .87. Due to time constraints, students were administered only four primary factors that were judged by two advanced school psychology students and one faculty member as the most relevant to career choice. The four factors included: Factor A (Warmth), Factor M (Abstractness), Factor Q2 (Self-Reliance), and Factor Q3 (Perfectionism). A total of 42 questions were administered, instead of the 185 questions.

Extended Objective Measure of Ego Identity Status: Revised (EOM-EIS-R)

The EOM-EIS: Revised (Bennion & Adams, 1986) is a measure of ego identity status in ideological domains (occupation, politics, religion, and philosophical lifestyle) and in interpersonal domains (friendship, dating, sex roles, and recreation). The domains are measured by eight items, which are comprised of two items for each identity status (i.e. achievement, moratorium, foreclosure, and diffusion) originally described by Marcia (1966). For the purpose of this study, only the domains of occupation, friendship, dating, and recreation were

administered. Bennion and Adams (1986) report internal consistencies ranging between .58 to .80.

Career Decision Scale (CDS)

The CDS (Osipow, 1982) is a self-administered questionnaire consisting of 18 items rated on a four-point Likert scale. The CDS assesses participants' level of certainty about his/her decision concerning college major and/or career. The CDS manual indicated test-retest reliabilities ranging between .70 to .90.

Procedures

This study was approved by the institute's Institutional Review Board. Recruitment of participants began by handing out an informed consent form (see Appendix). This form assured participants that their participation in the study is voluntary, that they had the right to skip any questions, and that their responses would be kept confidential. Each participant was assigned a unique, but anonymous code with which their data would be identified. In no way would their names be associated with their responses. Further, only the researchers would have access to the completed questionnaires, thus aiding in the confidentiality of their responses.

Consent forms were mailed home to potential participants' parents/guardians. Once consent and assent forms were received, all participants were assigned an identification number to maintain confidentiality. All participants were invited to a pizza party after completing the instruments one week later.

The participants with learning disabilities completed the instruments described above in small groups within approximately 30-45 minutes during one session. The SDS Form E was administered first, followed by the four factors from the 16PF. The CDS and modified EOM-EIS-R were administered in alternating order. Participants in the general education control group

completed the instruments described above within approximately 30-45 minutes during one session. The SDS Form R was administered first, followed by the four factors from the 16PF, and alternating order of the CDS and modified EOM-EIS-R.

Data Analysis

Descriptive statistics, independent sample t-tests, and Chi Square analyses were conducted to determine significant differences between students with learning disabilities and those without.

CHAPTER FOUR

Results

This chapter discusses a comparison of students with learning disabilities and those without learning disabilities and the results found.

A rank order of the means and standard deviations for the Self-Directed Search (SDS) factors by group are listed in Table 1. For those with learning disabilities, the first three ranks which correspond to a Holland code was: Social, Artistic, and Realistic. For those without learning disabilities the rank order of means was as follows: Social, Enterprising, Artistic, Investigative, Realistic, and Conventional.

The number of items on Form R and Form E of the SDS differed and therefore mean percent of items endorsed on the SDS RIASEC model were calculated and are listed in Table 2. Also presented in Table 2 are mean differences. There were significant differences of five of the six RIASEC categories ($p < .01$) with Enterprising $t(37) = -5.88$, $p = .000$, Investigative $t(37) = -4.33$, $p = .000$, and Social $t(37) = -3.39$, $p = .002$ having the greatest mean differences. Those with learning disabilities endorsed fewer items than those without learning disabilities indicating lower interest of activities and of occupations. In contrast, the students without learning disabilities endorsed significantly more items, indicating higher interest of activities and of occupations.

The percent of students' current, past, mother's, and father's employment status are presented in Table 3. Although no significant differences were found, a trend was noted in that students with learning disabilities were less employed as were their parents compared to those without learning disabilities.

Shown in Table 4 are the descriptive statistics and mean differences for the selected 16PF Personality Factors by group. These factors were chosen to be the most career related. Students with learning disabilities were significantly lower on Factor A (Warmth) than those without learning disabilities $t(37) = -2.65, p = .012$. Therefore, those students with learning disabilities reported being more aloof, reserved, and distant from others as indicated on low scores on Factor A. Although there was not a significant difference between the two groups on Factor Q2 (Self-Reliance) and Q3 (Perfectionism), both of these factors had lower mean scores for the group with learning disabilities. Contrary to expectations, the mean scores for Factor M (Abstractness) were higher for those with learning disabilities.

The descriptive statistics and mean differences for identity status by group are displayed in Table 5. The students with learning disabilities were significantly higher in the Foreclosure stage than those without learning disabilities $t(37) = 2.92, p = .006$. This suggests that the students with learning disabilities decided too early in their adolescent development on a career choice.

Presented in Table 6 are the descriptive statistics and mean differences for career aspirations, consistency, and indecision by group. The students with learning disabilities were significantly higher in career indecidedness $t(37) = 1.82, p = .0385$ (one-tailed) and had significantly less career aspirations than the students without learning disabilities $t(37) = -1.52, p = .0685$ (one-tailed).

CHAPTER FIVE

Discussion

This chapter discusses a general overview, the results of the hypotheses, and the limitations of the study. Furthermore, it explores the implications for vocational assessment and counseling.

General Overview of Study

The purpose of this study was to investigate the school-to-work transition of students with learning disabilities compared to students in general education. The school-to-work transition occurs prior to and following high school graduation for students intending to seek employment. The transition period generally occurs during a wide time span which ranges from late adolescence to early adulthood. Approximately three million students are classified as having a specific learning disability in the United States (NCLD, 2007). Federal legislation (e.g. IDEA) mandates that a transition plan is included in a student's IEP, which needs to consider the student's preferences and interests.

Unfortunately, the learning and/or behavioral difficulties experienced in school by students with learning disabilities continue into the world of work. Youth with learning disabilities tend to flounder or drift from one job to another (Smith & Rojewski, 1993). As a group their dropout and grade retention rates are higher compared to the students in general education. Furthermore, they tend to enter into two-year community colleges and many do not graduate. They tend to seek part-time retail positions, which usually offer only minimum wages and no benefits.

There are many fields in which students with learning disabilities could be successful such as information technology, electronics, computers, construction, health care, financial and business services (Herr & Niles, 1997). These fields require some level of vocational training and perhaps even a two-year college degree. Unlike most retail jobs, these careers offer a full-time position with higher pay and benefits.

The purpose of this study was to better understand youth with learning disabilities in order to better guide them to be successful adults. The study compared the level of career decidedness of adolescents who are classified as having a learning disability to those who are not. Personality factors, identity status, and career interests of the students were also considered.

Results of Hypotheses

It was hypothesized that students with learning disabilities are more likely to experience identity diffusion and career immaturity than those without a learning disability. However, results yielded that youth with learning disabilities are significantly higher in identity foreclosure compared to those without learning disabilities. Results also yielded that students with learning disabilities are significantly higher in career immaturity compared to students without learning disabilities. In addition, it was hypothesized that students with learning disabilities have significantly less career aspirations than those without a learning disability. Results indicated that students with learning disabilities have significantly less career aspirations than those without learning disabilities.

Perhaps students with learning disabilities have lower career aspirations due to a lack of awareness of vocational choices in which they could be successful. When making career choices, they tend to adopt the attitudes of others without exploring. Many of the students in the study were in the ninth and tenth grades and had already committed to a career without exploration of

alternatives. Although they commit early, they are more immature than their peers indicating that youth with learning disabilities need vocational assessment and counseling. Transition planning should include exploratory activities as well as the establishment of support systems.

Implications for Best Practices

In an overview of best practices in school-based vocational assessment, Levinson (2002) noted that “despite limited involvement by school psychologists in vocational assessment” activities, the National Association of School Psychologists (NASP) incorporates both vocational assessment and vocational intervention in its *Professional Conduct Manual*; however, few if any school psychologists who have graduated from a NASP approved school psychology program are prepared to provide transition related activities (p.1571). School psychologists should be considered core team members because of their strong assessment skills.

Furthermore, Levinson (2002) recommends that a comprehensive vocational assessment should include an evaluation of psychological, social, academic, physical/medical, and vocational functioning. A variety of techniques can be used to collect information such as record reviews, interviews, observations, pencil-and-paper tests, performance tests, and work samples. Levinson suggests the types of information in vocational assessment that can be gathered as part of a vocational evaluation shown in Figure 2.

The present study investigated the vocational functioning of students with and without learning disabilities using the Self-Directed Search (SDS), select factors of the 16 Personality Factor Questionnaire – Fifth Edition, Career Decision Scale (CDS), and select domains of the Extended Objective Measure of Ego Identity Status: Revised (EOM-EIS-R). In addition to other vocational assessment tools, these instruments can be used for vocational evaluations and career counseling purposes.

The Self-Directed Search (SDS) Form E was found to be more appropriate for students with learning disabilities (Cummings & Maddux, 1983). Form E is similar to Form R; however, it was developed for poor readers. Form E includes 25 fewer items, directions and statements are more simply written, and two instead of three summary codes are obtained. To ensure accuracy in self-administration and self-scoring of students with learning disabilities, the vocational counselor should be available to answer questions, should check completed tests for errors, and if possible should score the forms.

Taymans (1991) reviewed the SDS for individuals with learning disabilities and does not recommend using Form E. Taymans explains that although the SDS Form E is a simplified version of the SDS, it confuses the concepts of interest and aptitude. The “Competencies” section of the SDS asks test takers to indicate activities they can perform; however, the SDS Form E considers competencies activities the test taker knows how or wants to learn. The mixing of interest (wanting to learn) and aptitude (have learned) can confuse the test takers and can make test interpretation difficult. The researcher recommended the following when working with individuals with learning disabilities: one-to-one administration of the SDS Form R, the test administrator should be available to answer questions and may want to develop a list of alternate words or phrases to help explain items, scoring should be done by the professional, and scores should be verified with the student.

Implications of the Results

Overall, the present study found significant differences between students with and without learning disabilities. Those with learning disabilities were found to be higher in Foreclosure, more reserved and distant from others, and higher in career immaturity. Additionally, they had significantly fewer items endorsed on the SDS, suggesting lower interest

levels and tended to be more Realistic than their peers. Lastly, students with learning disabilities had significantly less career aspirations than those without learning disabilities.

Students with learning disabilities endorsed significantly less items on five of the six RAISEC categories indicating lower career interest. Furthermore, students with learning disabilities as a group overall had a different SDS summary code than those without learning disabilities. The adolescents with learning disabilities had a group summary code of Social, Artistic, and Realistic; whereas, the youth without learning disabilities had an overall group summary code of Social, Enterprising, and Artistic. The students with learning disabilities tended to be more Realistic than those without learning disabilities, suggesting that they prefer to deal with things more than ideas. This is consistent with the personality factor, abstractness (Factor M), which was also low and suggests that those with learning disabilities are grounded and practical. They also tend to be group-oriented (Factor Q2) and flexible (Factor Q3); however, no significant differences were found between the two groups on Factors M (Abstractness), Q2 (Self-Reliant), and Q3 (Perfectionism).

Most interesting is that personality factors were not noted in Levinson's recommended list of information that should be collected for a vocational assessment. When considering career related theories, such as the person-environment fit theory, it would seem important to also consider a student's personality. In the present study, students with learning disabilities were significantly lower in Factor A (Warmth) compared to those without learning disabilities, suggesting they are more reserved, impersonal, and distant. A person high in warmth is outgoing and attentive to others.

Levinson did recommend considering career maturity when conducting a vocational assessment; however, identity status was not listed. Perhaps career maturity and identity status

have stronger implications for career counseling rather than career assessment. In the present study, students with learning disabilities were significantly higher in Foreclosure than students without learning disabilities. Furthermore, they had significantly fewer career aspirations and were significantly higher in career immaturity than their peers. A career counselor should consider the student's level of career maturity, career aspirations and career interest level, as well as identity status. Perhaps encouraging the student to experience a Moratorium stage would be beneficial. Researchers have found that students with learning disabilities have significantly fewer career aspirations (Rojewski, 1996), lower self-worth (Colangelo, Kelly, & Schrepfer, 1987), and higher emotional distress (Svetaz, Ireland, & Blum, 2000) than their peers in general education. Possible career counseling implications include assessing these factors and addressing them during counseling sessions. Career counseling may also address skill and/or performance deficits, such as improving poor social skills.

Limitations

Many of the students in this study were in ninth and tenth grades. Archer and Waterman (1983) found the greatest movement in identity formation between the tenth and twelfth grades. A follow-up study should include more students in eleventh and twelfth grades. In addition, a follow-up study should consider gender differences. Humes (1992) found that 141 high school students with learning disabilities in two large high schools in northern Virginia completed the SDS Form E. Findings indicated that there were statistically significant differences in vocational preferences for male and female students. Male participants most frequently endorsed Realistic (45.92%) and the female participants most frequently endorsed Social (52.63%). In addition, there were several second preferences most frequently endorsed by males and are as follows:

Enterprising (25.15%), Investigative (23.47%), and Social (21.43%). For females, second choices most frequently endorsed were Artistic and Social (both 31.58%).

Another limitation of this study was that it was based on a very small sample from one school district. A follow-up study should include a larger sample that is more representative of students with learning disabilities in that racial ethnicity and socioeconomic status differences are considered. Lastly, the items on the instruments used in this study, such as the Career Decision Scale, were frequently confusing to students. Although many students requested clarification on items, perhaps some students did not ask for help when clarification was needed.

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APPENDIX

Brief Demographic Survey

This is a survey for us to get to know you better.

1. What school do you go to? _____
2. How old are you? _____
3. When is your birthday? _____
4. What grade are you in? _____
5. Do you have a part-time job? _____

IF YES TO #5, GO TO QUESTION 6

IF NO TO #5, GO TO QUESTION 9

6. Where do you work? _____
7. What other jobs have you had? _____
8. About how many hours do you work in a week? _____
9. Who do you live with? _____

10. What are your parents' occupations? _____

11. What are your plans for after high school graduation? _____

Parent Consent Form

Dear Parent/Legal Guardian,

My name is Jennifer Merry and I am a graduate student in the School Psychology program at the Rochester Institute of Technology. I am conducting a study that is looking at ways to help adolescents transition from school to work or school to college. As part of the study I will administer a series of interest and career inventories. Specifically, my study is trying to determine if adolescents' personal interests are related to career decision making.

Your child has been invited to participate in this study. He/she will not miss any educational activities and participation will require about one hour during a study hall or free period. Work will be completed in a group setting. All results will be kept anonymous and confidential. Participation is voluntary and you may revoke permission at any time without reason. If your child decides he/she no longer wishes to participate in the study, he/she can withdrawal at any time without repercussions. The inventories that will be completed relate to normal development; no risk or threat of harm is foreseen from your child's participation.

As an incentive we would be glad to review the results of your child's inventories with you and your child if requested. We really feel that this is a worthy project. A possible benefit of your son/daughter's participation is that he/she will experience how the scientific method is applied to solve "real world" issues.

If you have any questions please feel free to contact me at 455-7342 or my faculty advisor, Dr. Scott Merydith, Chair of School Psychology Department, at 475-7980.

Appreciatively,

Jennifer Merry

(Please sign and return the following)

I, _____, the parent/legal guardian of, _____ agree to let my child participate in the Personality and Career Interest Study. I understand that my child's participation is voluntary and that results will be kept anonymous and confidential.

Parent/Legal Guardian Signature

Date

Table 1

Rank Order Means and Standard Deviations for Self-Directed Search (SDS) Factors by Group

Rank	With LD (n = 18)			Without LD (n = 21)		
	SDS Factors	M	SD	SDS Factors	M	SD
First	Social	13.22	10.22	Social	28.90	8.85
Second	Artistic	13.06	9.70	Enterprising	26.05	10.17
Third	Realistic	9.17	9.12	Artistic	23.19	10.22
Fourth	Enterprising	7.83	4.69	Investigative	22.86	9.37
Fifth	Investigative	7.83	7.03	Realistic	21.14	10.01
Sixth	Conventional	5.28	3.38	Conventional	17.14	8.49

Table 2

Mean Percent of Items Endorsed on the SDS RIASEC

	<u>With LD</u>		<u>Without LD</u>		
	(n = 18)		(n = 21)		
SDS Factors	M	SD	M	SD	Mean Diff.
Realistic	23.67	23.33	42.29	20.15	-18.62**
Investigative	20.11	18.04	45.71	18.73	-25.60**
Artistic	33.50	24.87	46.38	20.43	-12.88
Social	33.89	26.08	57.81	17.70	-23.92**
Enterprising	20.00	11.92	52.10	20.33	-32.10**
Conventional	13.39	8.49	35.05	16.57	-21.66**

** p < .01

Table 3

Percent of Self and Parental Employment Status by Group

	<u>With LD</u>	<u>Without LD</u>
	(n = 18)	(n = 21)
Employment Status	Answered Yes	Answered Yes
Current Employment	22.2%	77.7%
Past Employment	16.6%	14.3 %
Mother's Employment	71.4%	94.7%
Father's Employment	85.7%	100%

Table 4

Means, Standard Deviations, and Mean Differences for Selected 16PF Personality Factors by Group

	<u>With LD</u>		<u>Without LD</u>		
	(n = 18)		(n = 21)		
Selected 16PF Personality Factors	M	SD	M	SD	Mean Diff.
Factor A (Warmth)	3.89	1.75	5.43	1.86	-1.54**
Factor M (Abstractness)	7.00	1.61	6.33	1.32	0.67
Factor Q2 (Self-Reliance)	4.89	1.64	4.24	1.55	0.65
Factor Q3 (Perfectionism)	4.50	1.38	4.19	1.44	0.31

Note. Scale represents sten scores that can range from 1 to 10.

** $p < .01$.

Table 5

Means, Standard Deviations, and Mean Differences for Identity Status by Group

	<u>With LD</u>		<u>Without LD</u>		
	(n = 18)		(n = 21)		
Identity Status	M	SD	M	SD	Mean Diff.
Diffusion	2.12	0.38	2.50	0.61	0.07
Moratorium	2.40	0.59	2.46	0.60	-0.06
Forclosure	1.89	0.42	1.53	0.35	0.36**
Achievement	2.98	0.73	3.09	0.53	-0.11

Note. The values represent scores from a 5-point Likert rating scale: 1 = Strongly Disagree; 2 = Moderately Disagree; 3 = Agree; 4 = Moderately Agree; and 5 = Strongly Agree

** $p < .01$.

Table 6

Means, Standard Deviations, and Mean Differences for Career Aspirations, Consistency, and Indecision by Group

	<u>With LD</u>		<u>Without LD</u>		
	(n = 18)		(n = 21)		
Career Trait	M	SD	M	SD	Mean Diff.
Aspirations	3.56	0.92	4.29	1.85	-0.73 [†]
Consistency	2.39	0.77	2.24	0.62	0.15
Indecision	65.50	24.69	52.05	21.49	13.45 [*]

Note. The values of career aspirations represent number of dream jobs reported on the Self-Directed Search (SDS). The values of career consistency represent raw scores on the SDS. The career indecision scores represent values from a 4-point Likert rating scale on the Career Decision Scale (CDS): 1 = Exactly like me; 2 = Very much like me; 3 = Only slightly like me; 4 = Not at all like me.

* $p < .05$, one-tailed. [†] $p < .10$, one-tailed.

Figure 1

Projected Transition Scope and Sequence at W. High from Collet-Klingenberg (1998)

<u>9th Grade</u>	<u>10th Grade</u>	<u>11th Grade</u>	<u>12th Grade</u>
Interest Testing	Interest Testing	Interest Testing	Interest Testing
Functional	Functional	Functional	Functional
Assessment	Assessment	Assessment	Assessment
Career Plan	Career Plan	Career Plan	Career Plan
Career Portfolio	Career Portfolio	Career Portfolio	Career Portfolio
Career Expo	Career Expo	Career Expo	Career Expo
Employment Guest	Employment Guest	Employment Guest	Employment Guest
Speaker	Speaker	Speaker	Speaker
Employment Tour	Employment Tour	Employment Tour	Employment Tour
Job Shadow	Job Shadow	Job Shadow	Job Shadow
Technical College	Technical College	Technical College	Technical College
Tour	Tour	Tour	Tour
	Work Experience	Technical College	Technical College
	JTPA (job training	Shadow	Shadow
	and partnership act)	Work Experience	Work Experience
		JTPA	JTPA
		Co-op	Co-op
		*Apprenticeship DVR	*Apprenticeship
		referral	DVR funded work
			experience
		Eligibility Determined	
		IWRP (individualized	
		written rehabilitation	
		plan) written	
		Vocational Evaluation	

Figure 2

Type of Information in vocational assessment by Levinson (2002)

Psychological Functioning

- Emotional Stability
- Needs
- Temperament
- Values
- Intelligence
- Behavioral Tendencies

Social Functioning

- Adaptive Behavior
- Social/Interpersonal Skills
- Independent Living Skills
- Hygiene

Academic Functioning

- Receptive/Expressive
Language (Oral, Written)
- Reading Skills
- Mathematic Skills
- Range of Knowledge
(General Information)

Physical/Medical Functioning

- Vision
- Hearing
- Health
- Strength
- Dexterity/Motor Skills
- Endurance

Vocational Functioning

- Vocational Interests
- Vocational Aptitudes
- Work Habits/Attitudes
- Vocational/Career Maturity